



Muddy Branch Profile

Muddy Branch originates in Gaithersburg's historic district, one of Montgomery County's oldest development centers. The stream flows southwest for approximately 13 miles, before flowing into the Potomac River. Lack of stream buffer and stormwater management along major transportation corridors such as Route 355 and the railroad, as well as high levels of impervious cover in the headwaters, have impacted the streams in the upper portion of the watershed. Development occurred at a very rapid pace in this subwatershed, primarily after the 1970s. These later developments were subject to some level of environmental standards, but only the most recent ones have protected stream buffers and provided onsite stormwater controls. Closer to the headwaters, several regional stormwater facilities have been installed to control extensive impervious areas associated with the Shady Grove research and development and commercial corridor. Large areas of the stream valley have been purchased as parkland to protect landowners from flooding and improve stream protection. The lower development densities and higher level of protection downstream correspond with improved stream conditions.

Muddy Branch watershed restoration goals include the restoration of aquatic and riparian habitat in degraded subwatersheds and the implementation of upstream/upland stormwater retrofits to maintain stream restoration projects. To this end, the US Army Corps of Engineers is currently working with the County to specifically identify priority stream restoration sites (approximately 5 miles have been identified) and upstream stormwater retrofits associated with those stream locations. The County has already identified a number of stormwater retrofits to manage runoff from almost 250 impervious acres.

The County is developing a detailed implementation plan for the Muddy Branch watershed to meet its stormwater permit requirements and watershed restoration goals. This overview profile contains a series of maps and tables that provide basic watershed information to support a general understanding of existing watershed features, conditions, and restoration opportunities.

Table 1: Watershed Profile

	Acres	Percent of Watershed
Watershed Drainage Area	12,977	100%
Impervious Cover	2,392	18%
Stream miles	73	
Watershed Area Subject to County Permit¹	7,467	58%
Impervious Cover Subject to County Permit¹	1,230	16%
Forest Cover¹	1,181	16%
Pervious Cover (e.g., turf, meadow, farm fields)¹	5,056	68%

¹ Excluded areas include Rockville, Gaithersburg, rural zoning, all MNCPPC lands, Federal and State property, and Federal and State roads



Description of Map 1: Muddy Branch Watershed Existing Conditions

This map includes the following information based on the County Geographic Information System database:

- Pervious cover- Forest, turf, meadow, and farm fields
- Impervious cover
- Rivers and streams
- Existing Best Management Practices (BMPs) providing water quality treatment to the maximum extent practicable (MEP) and completed stream restoration sites
- Table of impervious surface and the existing level of control for the County's stormwater permit

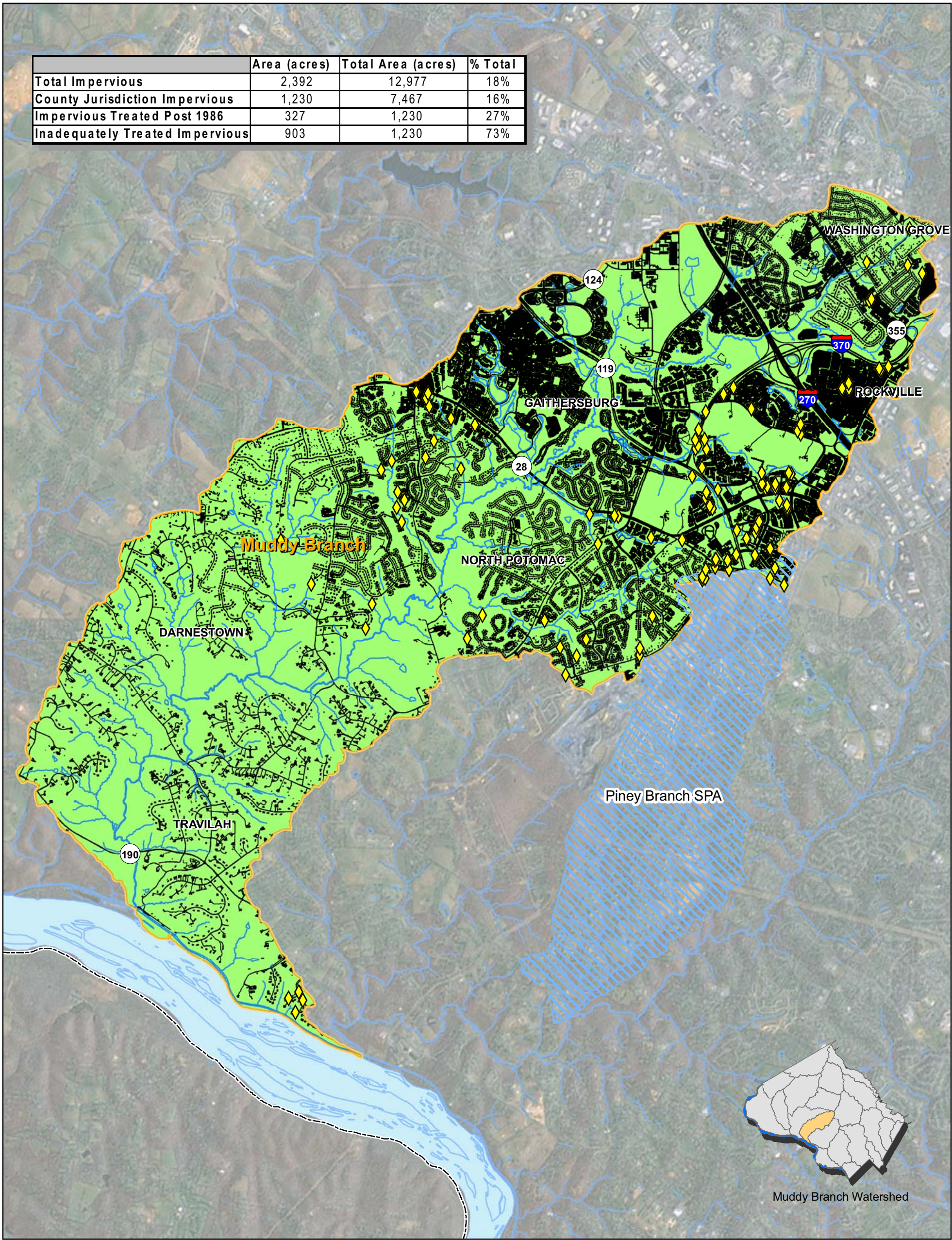
Description of Map 2: Muddy Branch Watershed Potential Restoration Opportunities

This map includes the location of the following potential restoration opportunities, compiled from previous watershed restoration studies, reviewed for inclusion to the County's Capital Improvement Program fiscal years 2011-2016, and potential future projects:

- Retrofits of existing stormwater management practices
- New proposed stormwater ponds or wetlands
- Potential Low Impact Development (LID) opportunities
- Stream restoration candidate sites
- Summary table of the total number of potential sites

MAP 1. MUDDY BRANCH WATERSHED EXISTING CONDITIONS

	Area (acres)	Total Area (acres)	% Total
Total Impervious	2,392	12,977	18%
County Jurisdiction Impervious	1,230	7,467	16%
Impervious Treated Post 1986	327	1,230	27%
Inadequately Treated Impervious	903	1,230	73%

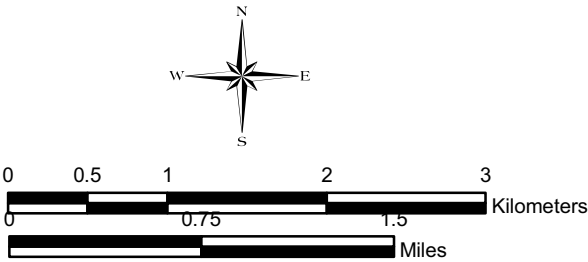


Legend

- Existing Well Performing Best Management Practices (111 sites)*
- Completed Stream Restoration Sites (0 sites)*
- Special Protection Areas
- Streams
- Muddy Branch Watershed Boundary
- Pervious Cover (forest, turf, meadow, farm fields)
- Impervious Cover
- Montgomery County Boundary

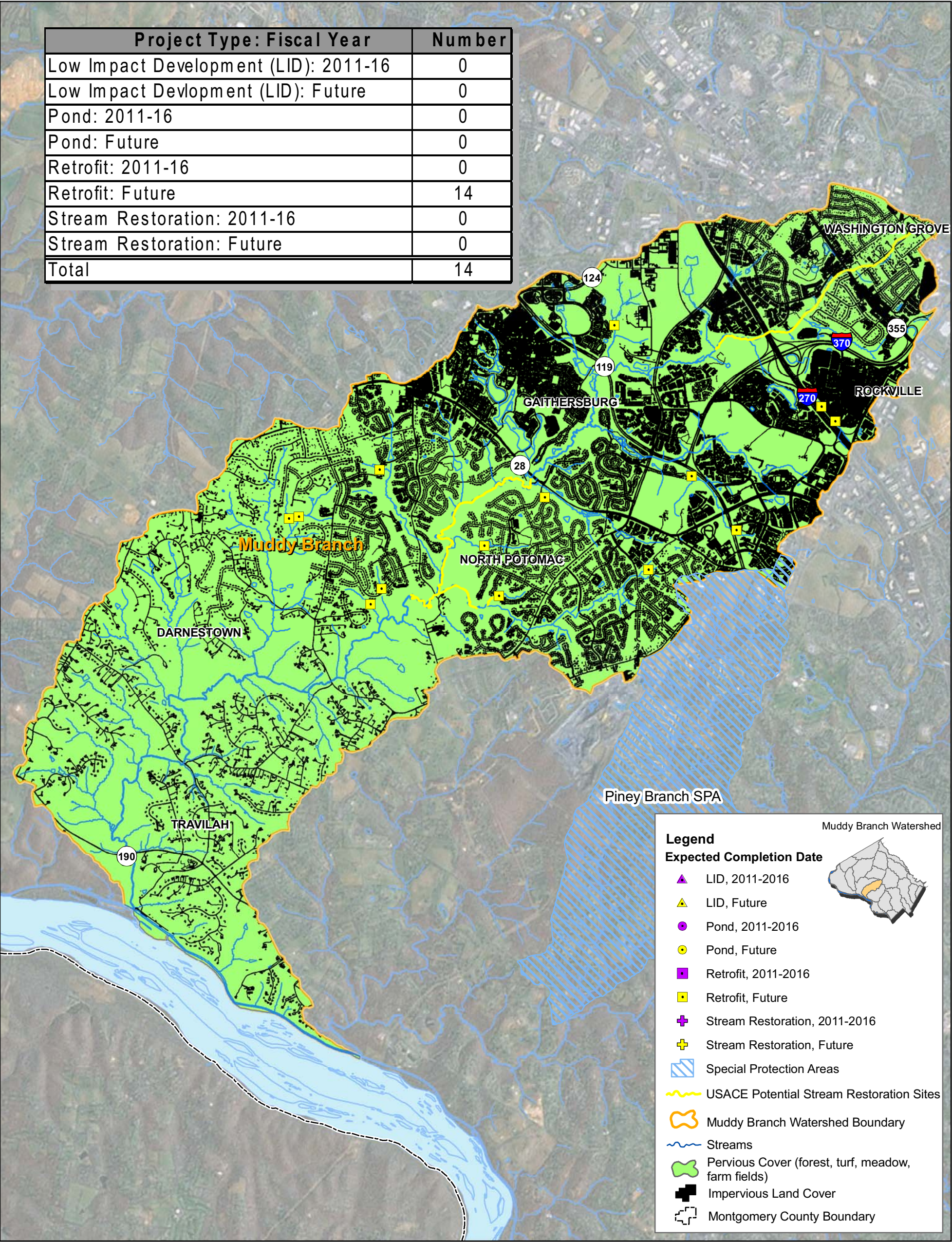
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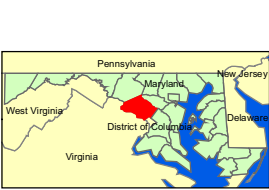
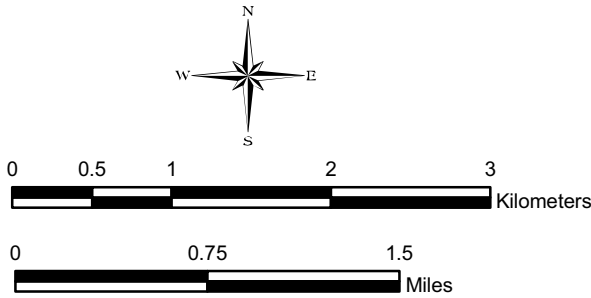
*Excludes other municipalities, all MNCPPC lands, rural areas, Federal and State property, and Federal and State Roads

MAP 2. MUDDY BRANCH WATERSHED RESTORATION OPPORTUNITIES*



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